WHAT IS CLAIMED IS:

1.   A method of characterizing a candidate agent for activity in an asthma/atopy context, the method comprising:

deriving a biological dataset profile for a test agent, said comprising output from 2 or more parameters obtained in an asthma/atopy context system;

wherein said profile comprises control data from said asthma/atopy context system lacking said biologically active agent;

comparing said profile to a reference profile to determine the presence of variation, wherein said test agent profile is different than the control if at least one parameter value of the profile exceeds a predefined level of significance.

2.   The method according to Claim 1, wherein said test agent is a genetic agent.

3.   The method according to Claim 1, wherein said agent is a chemical or biological agent.

4.   The method according to Claim 1, wherein said biological dataset profile comprises readouts from multiple cellular parameters resulting from exposure of cells to biological factors in the absence or presence of a test agent.

5.   The method according to Claim 4, wherein said system comprises a plurality of samples of a single cell type or types in a common biologically relevant context; comprising at least one control in the absence of the test agent.

6.   The method according to Claim 5, wherein a plurality of systems are concatenated for simultaneous analysis.

7.   The method according to Claim 1, wherein said asthma/atopy context comprises one or more of primary bronchial epithelial cells, primary mast cells, primary smooth   muscle   cells,   and   Th2   T   cells.